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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,421	10/07/2003	Michio Masuda	TOC-0008	3476

23353 7590 07/22/2005

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EXAMINER

MITCHELL, KATHERINE W

ART UNIT PAPER NUMBER

3677

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/679,421

Applicant(s)

MASUDA, MICHIO

Examiner

Katherine W. Mitchell

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/14/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Clarification

1. In the previous office action, examiner noted it was not clear whether applicant was claiming the subcombination (coil body) or combination (coil body and female screw). Applicant has amended so that it is clear only the subcombination (coil body) is being claimed.

Drawings

2. The amended drawings filed 6/14/2005 are approved

Claim Rejections - 35 USC § 102

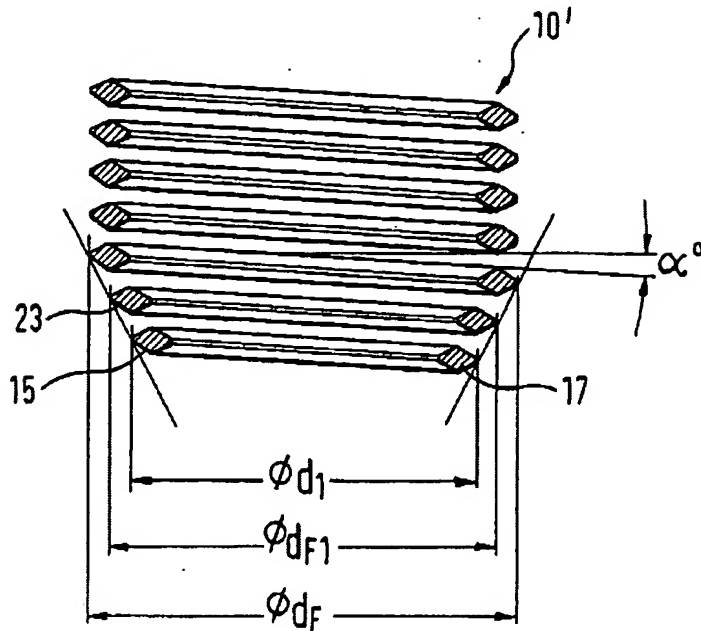
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kobusch UP 6146073.

Kobusch teaches a spiral coil shaped insertion body formed by coiling a rhombic cross-section wire (Fig 2 or 5) and capable of insertion into a female screw and capable of receiving a male screw, the spiral body comprising:



KOBUSCH Fig 5

- a cylinder portion of fixed diameter (straight portion formed by top 5 threads above)
- a tapered portion with outside diameter reduced from cylinder portion toward distal end of spiral body (tapered portion formed by bottom 3 threads above)
- the outside thread pitch diameter of cylinder section $>$ pitch diameter of the female screw (col 3 lines 1-12, col 4 lines 7-19)
- the inside thread pitch diameter of a region of the taper portion covering 1 or more turns $<$ pitch diameter of a male screw. There is a male screw that is usable with the coil which has a pitch diameter larger than the inside thread pitch diameter of the taper portion. No male screw limitation is positively recited.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobusch in view of Goodwin et al. USP 5730566.

Kobusch teaches a spiral coil shaped insertion body as discussed above, but does not teach that the distal end of said taper portion is extended to form a small diameter cylinder section. Goodwin et al. teach in the Figs a fastener with an upper cylindrical section, a middle section tapering down towards the distal end, and that the distal end of said taper portion is extended to form a small diameter cylinder section. Examiner notes that Goodwin et al. is not being physically combined with Kobusch, but that Kobusch is being modified to include a small diameter cylindrical section as taught by Goodwin et al. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Kobusch and Goodwin et al. before him at the time the invention was made, to modify Kobusch as taught by Goodwin et al. to include the small-diameter cylindrical section at the distal end as taught by Goodwin et al. in order to obtain easy insertion and axial alignment. One would have been motivated to make such a combination because a fastener less likely to be stripped or deformed due to misalignment during insertion would have been obtained, as taught/suggested by Goodwin et al. in col 2 lines 15-25.

Response to Arguments

7. Applicant's arguments filed 6/14/2005 have been fully considered but they are not persuasive.

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8. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the coil insert and male screw can move inside the female) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that the specifics of the male screw pitch diameter are not taught, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. The recitation "for insertion into a female screw and for receiving a male screw which is screwed in " is directed to the intended use and also occurs in the preamble. Applicant has specifically amended to claim the subcombination coil insertion body only. Kobusch's coil body is **capable of** use with a female and male screw where the outside thread pitch diameter of the cylinder portion and the inside thread pitch of the tapered diameter portion are related to female and male screw pitch diameters as claimed.

If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963).

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9. Examiner does not understand the reference to Aoyama as this does not seem to relate to the pending claims or case.

10. In response to applicant's argument that Goodwin would not adhere to the nut of generate friction with a nut, examiner is not physically combining the two references.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Goodwyn was used only to show that a dog point end is well known in the fastener art, in that it assists in inserting and centering a fastener into a receiving aperture, and that the threaded coil of Kobusch could have such a feature if needed to center the end for insertion:

FIG. 1A illustrates the initial installation of the bolt 10 and nut 22 at a maximum misalignment condition. The dog point 18 restricts the angular misalignment of the helical threads on the shank 16 and the nut 22.

11. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re*

Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the desire to ensure proper centered insertion and prevent misalignment would be a concern that a dog point would address, as would be known by one of ordinary skill in the art, and this would be a known motivation to combine the references. Figs 3 and 6 of Kobusch even show a tapped hole with a small diameter cylindrical end, which would accommodate a dog point. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

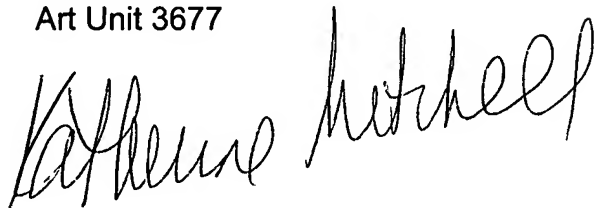
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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Katherine W Mitchell
Examiner
Art Unit 3677

A handwritten signature in cursive script, appearing to read "Katherine Mitchell", written in black ink.

Kwm
7/20/2005

Annotated Sheet



Handwritten: 2/1/05
7/19/05

FIG. 1

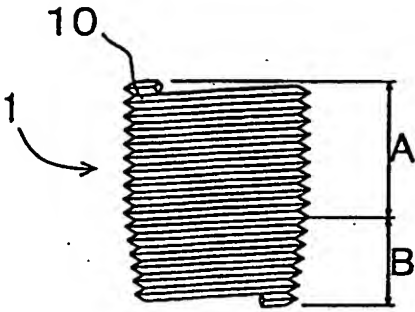
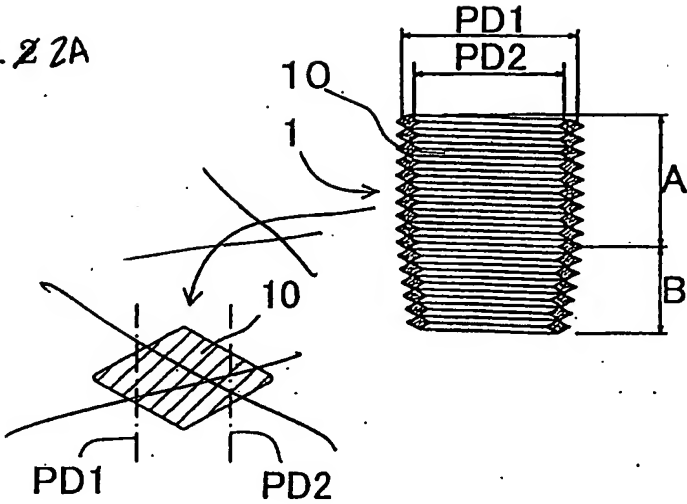
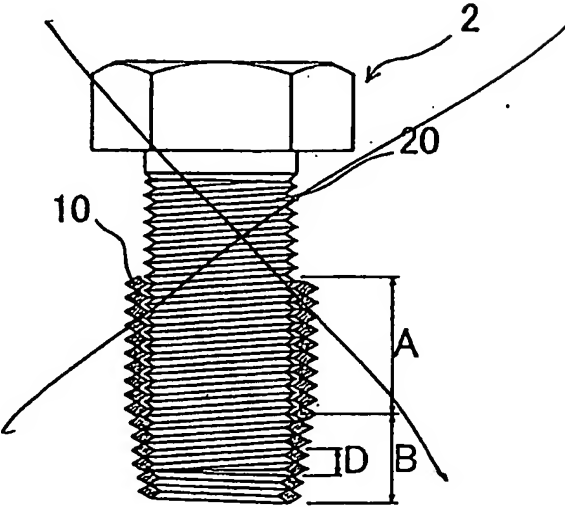
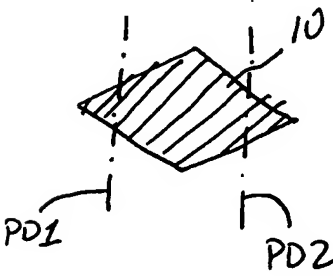


FIG. 2A



~~FIG. 3~~

FIG. 2B





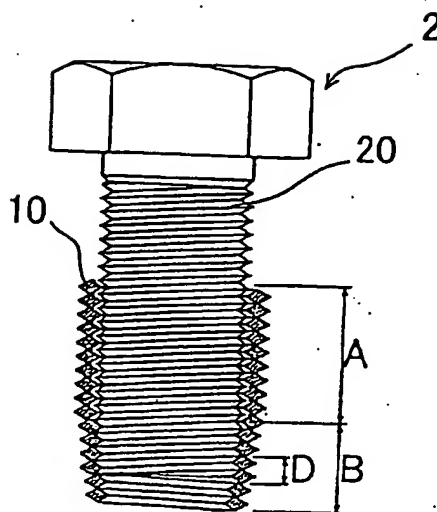
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Replacement Sheet

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FIG. 3





Replacement Sheet

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7/19/05

FIG. 1

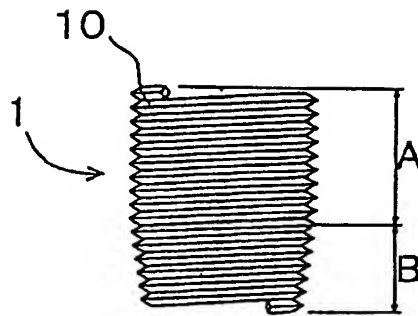


FIG. 2A

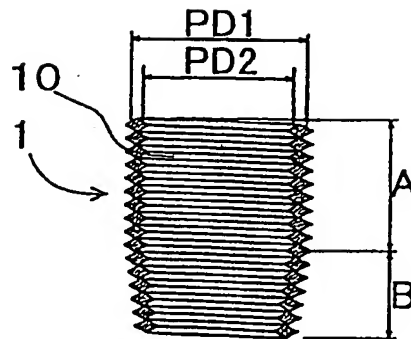


FIG. 2B

